

Appln. No. 10/724,948

Docket No. GP-302434/GM2-0079

**REMARKS / ARGUMENTS****Regarding Check Box 1(a) on page 1 of the Advisory Action**

This reply is in response to the Final Action dated August 19, 2005, and to the Advisory Action dated November 30, 2005.

In response to the Final Action dated August 19, 2005, Applicant filed a response on October 17, 2005, which was a first reply filed within two-months of the mailing date of the Final Action.

The Advisory Action was not mailed until November 30, 2005, which was more than three-months from the mailing date of the Final Action.

Accordingly, Applicant believes that a timely response to the instant Advisory Action is made if made on or before December 30, 2005, if accompanied by a one-month extension of time request and fee payment.

However, Applicant notes that the Examiner has checked box 1(a) on the Advisory Action Paper No. 11262005, page 1, which restricts the period of reply to three-months from the mailing of the Final Action, resulting in a one-month extension of time expiration date of December 19, 2005, not December 30, 2005.

Under MPEP 706.07(f), Applicant respectfully submits that box 1(b) should have been checked on page 1 of Paper No. 11262005 (the instant Advisory Action) since Applicant filed the first reply to the Final Action within two-months of the mailing of the Final Action.

Accordingly, Applicant respectfully requests that the Examiner consider this response as being timely filed since it is accompanied by a one-month extension of time request and fee payment.

**Status of Claims**

Claims 1-19 are pending in the application and stand rejected. Applicant has amended Claims 1, 14 and 18, and has added new Claims 20 and 21, leaving Claims 1-21 for consideration by the Examiner.

Appln. No. 10/724,948

Docket No. GP-302434/GM2-0079

Applicant respectfully submits that the rejections under 35 U.S.C. §103(a), have been traversed, that no new matter has been entered, and that the application is in condition for allowance.

**Rejections Under 35 U.S.C. §103(a)**

Claims 1-19 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Iwasa et al. (U.S. Patent No. 5,565,117, hereinafter Iwasa) in view of DUOCEL ALUMINUM FOAM (IDS submitted by Applicant, hereinafter DUOCEL).

Applicant traverses these rejections for the following reasons.

Applicant respectfully submits that the obviousness rejection based on the References is improper as the References *fail to teach or suggest each and every element of the instant invention in such a manner as to perform as the claimed invention performs*. For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a prima facie case of obviousness. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). The Examiner must meet the burden of establishing that all elements of the invention are taught or suggested in the prior art. MPEP §2143.03.

Applicant has amended Claims 1, 14 and 18, to now recite, inter alia:

*"...providing a first workpiece and a second workpiece having surface characteristics that result in one or more gaps at an interface when the workpieces are placed one on top of the other;*

...

*applying a pressure to at least one of the workpieces so that the filler material is crushed to substantially fill the one or more gaps..."* (Claim 1);

*"...a pair of overlapping workpieces, the workpieces having surface characteristics that define one or more gaps in the overlapping region; and*

*...the filler material having been crushed so as to increase its density and to substantially fill the one or more gaps."* (Claim 14); and

*"...providing a first workpiece and a second workpiece having surface characteristics that result in one or more gaps at an interface when the workpieces are*

Appln. No. 10/724,948

Docket No. GP-302434/GM2-0079

*placed one on top of the other;*

...

applying a pressure to at least one of the workpieces so that the filler material is crushed *to substantially fill the one or more gaps*, wherein after the pressure is applied, the filler material has a final density greater than or equal to 70% *and less than 100%...*" (Claim 18).

No new matter has been added as antecedent support may be found in the specification as originally filed, such as at Paragraphs [0013-0015] and Figure 1 for example. Dependent claims inherit all of the limitations of the respective parent claim and any intervening claim.

Here, Applicant is claiming a method of joining, and a welded joint, having a weld interface that has gaps 14 and a crushable porous filler material 20 that fills the gaps 14.

In comparing Iwasa and Duocel (the References) with the instant invention, Applicant finds the References to be absent any teaching or suggestion of introducing a crushable porous filler material into a weld joint for the purpose of filling gaps present at the interface of the workpieces to be joined.

In Duocel at page 3, last paragraph, Applicant finds Duocel to teach a material that is *"not supplied as a raw material, but only as a finished end-item product* which has been designed and manufactured to meet the customer's application requirements." In view of Duocel teaching *a finished end-item product*, and *not* a crushable porous filler material specifically suitable *as a raw material for welding*, Applicant submits that the References as a whole fall wholly short of teaching each and every element of the claimed invention arranged so as to perform as the claimed invention performs, and therefore cannot properly be used to establish a prima facie case of obviousness.

Furthermore, Applicant submits that the present invention is directed at solving the problem of gaps at a weld interface, and nowhere in the References does Applicant find any teaching of a solution to solve this problem. Only through the teaching of the instant application does one arrive at the solution that is presently claimed in the instant

Appl. No. 10/724,948

Docket No. GP-302434/GM2-0079

invention.

Regarding Claims 5 and 18 More Specifically

Claims 5 and 18 recite, inter alia,

"...wherein, after the pressure is applied, a final density of the filler material is greater than or equal to 70% *and less than 100%*."

In alleging obviousness of Claims 5 and 18, the Examiner remarks that it would have been obvious to have a high final density, since at high density, both the top and bottom workpieces are guaranteed to have a strong bond. Paper 08052005, page 3.

In respectful disagreement with the Examiner, it is not just the high density that is claimed, but the high density being *less than 100%* that is claimed.

If one skilled in the art would be motivated to do what the Examiner suggests, then one skilled in the art would strive to reach 100% density, which is contrary to the claimed invention as clearly indicated by the conjunctive "and" in the claim language.

At Paragraph [0016] of the instant application, Applicant discusses the benefit of having a porous medium (less than 100% density) in the joint, which serves to provide a capillary action for a braze material to wick into the joint, thereby producing a high quality joint.

Nowhere in the References does Applicant find a teaching or suggestion of each and every element of the claimed invention arranged so as to perform as the claimed invention performs. Accordingly, Applicant submits that the References cannot properly be used to establish a prima facie case of obviousness.

In view of the foregoing, Applicant submits that the References fail to teach or suggest each and every element of the claimed invention and are therefore wholly inadequate in their teaching of the claimed invention as a whole, fail to motivate one skilled in the art to do what the patent Applicant has done, fail to recognize a problem recognized and solved only by the present invention, fail to offer any reasonable expectation of success in combining the References to perform as the claimed invention performs, and discloses a substantially different invention from the claimed invention,

Appln. No. 10/724,948

Docket No. GP-302434/GM2-0079

and therefore cannot properly be used to establish a prima facie case of obviousness. Accordingly, Applicant respectfully requests reconsideration and withdrawal of all rejections under 35 U.S.C. §103(a), which Applicant considers to be traversed.

**Regarding New Claims 20-21**

Applicant has added new Claims 20-21 that depend from Claim 1 and are directed to subject matter originally disclosed but not claimed. No new matter has been added as antecedent support may be found in the specification as originally filed, such as at Paragraphs [0013] and [0016] for example.

In view of the remarks set forth above regarding the allowability of Claim 1, Applicant submits that new Claims 20-21 are directed to allowable subject matter and respectfully requests notice of allowance thereof.

Appn. No. 10/724,948

Docket No. GP-302434/GM2-0079

The Commissioner is hereby authorized to charge any additional fees that may be required for this amendment, or credit any overpayment, to Deposit Account No. 06-1130.

In the event that an extension of time is required, or may be required in addition to that requested in a petition for extension of time, the Commissioner is requested to grant a petition for that extension of time that is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to the above-identified Deposit Account.

Respectfully submitted,

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